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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,753	02/01/2002	Kevin L. Deppermann	49202-00020USPT	2451

7590 03/26/2003

Andre M. Szuwalski  
Jenkins & Gilchrist, P.C.  
Suite 3200  
1445 Ross Avenue  
Dallas, TX 75202-2799

EXAMINER

ROSENBAUM, MARK

ART UNIT

PAPER NUMBER

3725

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/062,753

Applicant(s)

DEPPERMAN, KEVIN L. *CR*

Examiner

Mark Rosenbaum

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no proper antecedent basis for claim 7, line 3 'the capped tubular vessel'.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4,6,9,14,17,18,20,21,25-27,29,33,34,36,37 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomes et al. Figures 6 and 7 in particular show capped ball mills being reciprocally moved.

Claim 30 is rejected under 35 U.S.C. 102(b) as being anticipated by Klein, Matteazzi et al, or Gamblin. Each of these references shows ball mills with end caps.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 31,32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein, Matteazzi et al, or Gamblin. The exact configuration of the end caps would have been a design choice only based on several factors such as interior chamber conditions and desired maintenance features. Therefore, in order to provide for the inherent features, it would have been obvious for one of ordinary skill in the art to modify Klein, Matteazzi et al, or Gamblin by providing particularly shaped surfaces on the end caps since such a design would have been well within the scope of one skilled in the art.

Claims 5,10,11,15,16,19,22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomes et al. The limitations of these claims would have been design choices only once the basic apparatus was known. For example, horizontally orienting the apparatus would have been a design choice only based on several factors such as material being treated and available floor space.

Claims 1-29,33-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (APA) in view of either Tomes et al. APA is the process and apparatus discussed in the first few pages of the specification, which includes rotary ball mills. As noted in the specification, rotary mills can create material treatment problems. Tomes et al solves this problem by disclosing the use of reciprocating mills. In order to prevent material treatment problems, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify APA by replacing rotary mill motion with reciprocating mill motion, taught to be desirable by Tomes et al. The remaining limitations of these claims would have been design choices only once the basic

apparatus was known. For example, horizontally orienting the apparatus would have been a design choice only based on several factors such as material being treated and available floor space.

Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Tomes et al as applied to claim 1 above, and further in view of Klein, Matteazzi et al, or Gamblin. APA does not appear to use end caps which increases maintenance costs. Klein, Matteazzi et al, or Gamblin solve this problem by disclosing the use of end caps. In order to reduce maintenance costs, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify APA by providing end caps, taught to be desirable by Klein, Matteazzi et al, or Gamblin. The exact configuration of the end caps would have been a design choice only based on several factors such as interior chamber conditions and desired maintenance features. Therefore, in order to provide for the inherent features, it would have been obvious for one of ordinary skill in the art to modify APA Gamblin by providing particularly shaped surfaces on the end caps since such a design would have been well within the scope of one skilled in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Rosenbaum whose telephone number is 703-308-1788. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alan Ostrager can be reached on 703-308-3136. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-305-3579

for regular communications and 703-305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-

1148.

A handwritten signature in cursive script, appearing to read "Mark Rosenbaum".

Mark Rosenbaum  
Primary Examiner  
Art Unit 3725

MR  
March 20, 2003